

### **REMARKS**

This Reply responds to the Final Office Action mailed January 10, 2006. Claims 1-17, 24, 25, 27-30 and 32-34 are pending in the application and claims 1-3, 5, 8, 9, 12, 15-17, 24, 25, 29, 30 and 34 stand rejected. Claims 3, 4, 6, 7, 10, 11, 13, 14, 27, 28, 32 and 33 were withdrawn in view of a restriction requirement.

Applicants would like to thank the Examiner, George R. Koch, III, for the personal interview with Applicants' representative, David W. Dorton, on March 7, 2006. During the interview, independent claims 1, 8 and 34 were discussed with respect to the references of record, as discussed more fully below. Upon further review of the references during the interview, the Examiner agreed that the references of record do not teach or suggest the pending claims, as noted in the Interview Summary. Applicants therefore respectfully request reconsideration in view of the personal interview and the remarks below.

### **Reconsideration of Withdrawn Claims**

Claims 3, 4, 6, 7, 10, 11, 13, 14, 27, 28, 32 and 33 were withdrawn from consideration in view of a restriction requirement. Because generic claims 1, 8, 15-18 and 22 are in condition for allowance for at least the reasons set forth below, Applicants respectfully request that these withdrawn claims now be rejoined and allowed.

### **Objections to the Claims**

The Final Office Action advised that claims 24 and 29 would be objected to as duplicative of claims 2 and 9, respectively, if claims 2 and 9 were allowed. Applicants submit that claims 2 and 9 are allowable for the reasons set forth below, and respectfully request reconsideration with respect to the alleged duplicity with claims 24 and 29. Specifically, Applicants note that claims 2 and 9 are species claims that only recite "said controller is configured to indicate when the temperature sensed by said second sensor deviates from a predetermined temperature range." Claims 24 and 29, however, are Markush-type claims and recite that the controller is configured in one of the following manners:

- (a) to indicate when the temperature sensed by said second sensor deviates from a predetermined temperature range;
- (b) to monitor the temperature associated with the heating element over time and indicate when a rising or falling temperature is detected; or
- (c) to monitor the respective temperatures associated with a plurality of said heating elements and compare the respective temperatures to one another.

MPEP §706.03(k) states that "court decisions have confirmed applicant's right to restate (i.e., by plural claiming) the invention in a reasonable number of ways. Indeed, a mere difference in scope between claims has been held to be enough." For the purpose of determining whether claims are duplicative in scope, Applicants assert that the claims must be considered in their entirety. Applicants further assert that claims 24

and 29 have a different scope than claims 2 and 9. Specifically, claims 24 and 29 are not limited to an apparatus having a controller that indicates when the temperature sensed by a sensor deviates from a predetermined temperature range, but would also be infringed by an apparatus having all of the elements recited in claims 1 or 8, and further having a controller that either monitors temperature associated with a heating element over time and indicates when the temperature rises or falls, or a controller that monitors temperatures associated with heating elements and compares the respective temperatures to one another. The scope of each of claims 24 and 29 is therefore clearly different from the scope of claims 2 and 9. Accordingly, claims 24 and 29 are not duplicative of claims 2 and 9, respectively, and objection to these claims on such grounds would be improper. For at least these reasons, Applicants respectfully assert that claims 24 and 29 should not be objected to as duplicative of claims 2 and 9, respectively.

#### **Claims Rejected Under 35 U.S.C. §102**

Claim 34 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,035,604 to Gustafsson. Claim 34 is directed to an apparatus for monitoring the operation of a heating device having a plurality of heating elements moving periodically along at least one predefined path. During the interview on March 7, 2006, Applicants' representative pointed out, and the Examiner agreed, that the first and second sensors 92, 93 of Gustafsson '604 were spaced sufficiently far apart that Gustafsson '604 fails to teach or suggest "said first sensor configured to sense the

presence of successive heating elements proximate said second sensor as the heating elements move past said sensors along the predefined path," as recited in claim 34.

Accordingly, Applicants respectfully request that the rejection of claim 34 over Gustafsson '604 be withdrawn.

**Claims Rejected Under 35 U.S.C. §103**

Claims 1, 2, 5, 8, 9, 12, 15-17, 24, 25, 29 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,678,390 to Pruett et al. in view of U.S. Patent No. 4,722,168 to Heaney and Gustafsson '604. Claims 1 and 8 are the only independent claims of this rejected group and each recites:

a first sensor configured to sense the presence of the heating element as the heating element moves past the first sensor; and

a second sensor mounted to allow movement of the heating element relative thereto and configured to sense a temperature associated with the heating element when said first sensor senses the presence of the heating element.

Upon further review of Pruett '390, Heaney '168 and Gustafsson '604 during the personal interview, the Examiner agreed that these references do not teach or suggest each and every element recited in claims 1 and 8, for the reasons set forth in the Amendment filed October 13, 2005. Specifically, Pruett '390 fails to teach or suggest a first sensor configured to sense the presence of the heating element as the heating element moves past the sensor, or a second sensor mounted to allow movement of the

heating element relative thereto and configured to sense a temperature associated with the heating element when the first sensor senses the presence of the heating element. (See Office Action mailed July 13, 2005, at page 6.) Heaney '168 is directed to a high speed wrapping machine having a cut/seal head position sensor resolver (resolver 47) that constantly monitors the rotation of drive motor shaft 41 to indirectly determine the angular positions of cut/seal heads 17, 18 based on the rotation of the drive shaft of motor 41. The angular positions of cut/seal heads 17, 18 are therefore continuously calculated as a function of the drive shaft rotation, and the resolver does not sense the presence of a heating element as it moves past a sensor. Moreover, temperature sensors 66 of Heaney '168 are affixed to the cut/seal heads 17, 18 and constantly monitor the temperature as they move with the cut/seal heads, instead of being "mounted to allow movement of the heating element relative thereto and configured to sense a temperature associated with the heating element when said first sensor senses the presence of the heating element," as required by claims 1 and 8.

As discussed above, Gustafsson '604 does not teach or suggest a modification of Pruett '390 that cures these deficiencies. For at least these reasons, Applicants respectfully request that the rejections of claims 1 and 8 over the combination of Pruett '390, Heaney '168 and Gustafsson '604 be withdrawn.

Claims 2, 5, 24 and 25 each depend from independent claim 1, and claims 9, 12, 15-17, 29 and 30 each depend from independent claim 8. Accordingly, these claims are in condition for allowance for at least the reasons stated above for claims 1 and 8, and Applicants respectfully request that the rejections of claims 2, 5, 9, 12, 15-17, 24, 25, 29

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and 30 over the combination of Pruett '390, Heaney '168 and Gustafsson '604 be withdrawn.

### **Conclusion**

In view of the foregoing remarks set forth herein, Applicants believe this case is in condition for allowance and respectfully request allowance of the pending claims. If the Examiner believes any issue requires further discussion, the Examiner is respectfully asked to telephone the undersigned attorney so that the matter may be promptly resolved. The Examiner's prompt attention to this matter is appreciated.

Applicants are of the opinion that no fee is due as a result of this amendment. If any charges or credits are necessary to complete this communication, please apply them to Deposit Account No. 23-3000.

Respectfully submitted,

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